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ROTHWELL, FIGG, ERNST & MANBECK, P.C. 1425 K STREET, N.W. SUITE 800 WASHINGTON, DC 20005			EXAMINER GISHNOCK, NIKOLAI A	
			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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<b>Office Action Summary</b>	<b>Application No.</b> 10/090,532	<b>Applicant(s)</b> BROWN ET AL.	
	<b>Examiner</b> Nikolai A. Gishnock	<b>Art Unit</b> 3714	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25, 54-57 and 67-77 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25, 54-57 and 67-77 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

In response to Applicant's remarks, filed 8/24/2007, claims 49 and 64-66 are cancelled. Claims 26-48, 50-53 and 58-63 are withdrawn from consideration. Claims 1-25, 54-57, & 67-76 are pending. New claim 77 is pending.

### ***Claim Objections***

1. Claim 68 is objected to because of the following informalities: Amended claim 1 has parts (a)-(d), however, dependent claim 68 has parts (a) & (b), but refers to part (c). It is unclear that claim 68 refers to part (c) of claim 1. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 1-25 & 67-77 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Support could not found in the Applicant's disclosure for the limitations, "to achieve the predefined level of proficiency" of claim 1, "advancing the student to a second learning task or skill level in the curriculum, without input from the student..." of claim 1, and determining a new standard level of support, without input from the student..." of claim 73. The

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dependent claims also inherit this deficiency. Further, it appears that the limitations of new claim 77, "(d) presenting consecutive trials wherein the student's audio-visual support level is adjusted using the following standards: (i) the student's beginning audio-visual support level will be incrementally *decreased* after 3 out of 3, or 3 out of 4 consecutive trials have succeeded; or (ii) the student's beginning audio-visual support level will be incrementally *increased* to the highest ending audio-visual support level from 2 failed trials, after 2 out 2, or 2 out of 3 consecutive trials have failed" are *contradictory* to the disclosure, p. 44, line 16- p. 45, line 29 (5.6.7 The Progression Rules for the Comprehension Questions), which states, "Change Based on Trial Evaluation: a) If 3 of 3 or 3 of 4 Consecutive Trials are Successful, the program will attempt to *increase* the child's Beginning AVL {Audio/Visual Level} by 1; b) If 2 out of 2 or 2 out of 3 Consecutive Trials are Failed, the program will attempt to *decrease* the child's Beginning AVL to the highest Ending AVL from the 2 Failed Trials." This is a new matter rejection.

5. Claims 1-25 & 67-73 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Undue experimentation would be required of a routineer in the art, in order to determine a level of support necessary for the student to achieve a level of performance or proficiency, to advance the student to a second learning task, to demonstrate that a student has achieved proficiency, or to determine a new standard level of support based on whether or not the student is achieving the pre-defined level of performance for a learning task, without requiring or permitting *input* from the student, as recited in claims 1 & 73. More varieties of student input appear claimed than merely answering questions. The dependent claims also inherit this deficiency.

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6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "*the* pre-defined level of performance" in lines 1-2 of part (c). There is insufficient antecedent basis for this limitation in the claim, due to the current amendments.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-20, 24, 25, and 67-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrabee (US 4,804,328), hereinafter known as Barrabee, in view of Ho et al (US 5,944,530), hereinafter known as Ho.

10. Barrabee teaches a method of instruction (1:62-65) comprising: presenting a first or second learning task, or a first skill level to a student (2:41-43); presenting to the student a level of pre-defined support enabling the student to achieve a pre-defined level of *proficiency* for the

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learning task or skill level from a pre-defined set of support (display and reproduction of skill-level ordered information on videodisc, 2:44-60); and determining a first standard level of support or a new standard level of support necessary for the student to achieve the predefined level of *performance* for the learning task or skill level based on whether or not the level of support presented to enable the student to achieve the pre-defined level of *proficiency* or performance for the first or second learning task or the first skill level (skill-level switches 32, 33, & 34, 8:37-68; switches determine which lesson sequence and segment to advance to, based on the student's second thoughts about the current presentation, 8:53-57); and advancing the student to a second learning task or skill level in the curriculum, when the student is proficient at the first task or skill level, as demonstrated by the student achieving proficiency at the pre-defined level of support, adjusting the support presented to the student, based on the student's response to the first learning task or skill level, providing a lower level of support than the first standard level of support (the lesson advances from segment to segment at the rate desired by the student. The student will desire that the teaching proceed at a level, which is challenging, but one that does not overwhelm the student, because its presentation far exceeds the level the student has already achieved. Depending again on the student's knowledge of the subject matter, switch will be employed to initiate the command which selects the desired knowledge sequence from among the many lesson sequences stored, 8:37-68) [Claims 1 & 73].

11. What Barrabee fails to explicitly teach is advancing the student, to a second learning task or skill level in the curriculum, without input from the student [Claim 1], or determining a new standard level of support based on whether the student is achieving the pre-defined level of performance, without input from the student [Claim 73]. However, Ho teaches a computer-aided education system and method, for considering a student's level of concentration in teaching (1:49-52). In one embodiment, Ho teaches determining a student's level of concentration by

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asking questions (2:4-23). Ho teaches advancing the student to a second learning task or skill level without student input (the selector starts the learning process by selecting a line-item with the lowest difficulty level. If there are a number of those, one of them is randomly selected. Study materials for that line-item are retrieved from the study-materials storage medium to be presented to the student. After presentation, the selector selects another line-item with the lowest difficulty level among all the unselected line-items, and the process repeats, 4:66-5:11). Ho also teaches asking questions to determine a level of support based on whether or not a student is achieving a pre-defined level of performance for a learning task, and adjusting the support presented to the student (the system can also change the study materials according to the monitored results. If the student has lost concentration in working on the study materials for a predetermined amount of time, the system can react by changing the study materials to a different set of materials. Also, the presenter may change the presentation style accordingly, such as by reducing the speed of presentation through increasing the line spacing of the text or the size of the image to present to the student, 11:48-56, also at 2:4-23; Another benefit provided by the question is that the student's answer to the question provides an indication on the student's understanding level in the study materials. As described above, if the answer is wrong, the system can go over that part of the study materials, or can reduce the difficulty levels of the study materials to be presented to the student. In another embodiment, the question is just for increasing concentration, 12:59-65; The question can be used to assess the student's understanding level on the materials just presented to the student, 12:12-30; the presenter {can present} study materials that are easier than the one just presented to the student, such as one with a lower difficulty level, 12:12-30). Ho further determines whether the student has lost concentration by means other than asking questions, such as tracking a focus window, monitoring an image of the student's face, monitoring a student's breathing rate, heart beat,

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body temperature, and sweating, 8:11-9:67; the invention is also applicable to indicate the student's degree of concentration, such as ranging from low, medium to high, 10:22-32). The methods of Ho would be used to update the system of Barrabee, by using non-intrusive, automatic means, other than asking questions, to advance the student to a new learning task, of adjusted difficulty, based on measures of the student's concentration or understanding levels. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have adapted the computer-aided educational device of Barrabee to advance the student to a second learning task or skill level in the curriculum, without input from the student, and to determine a new standard level of support based on whether the student is achieving the pre-defined level of performance, without input from the student, as taught by Ho, in order to mimic a good instructor who teaches with sensitivity to her student's level, tailored to the strengths and weaknesses of the individual students [Claims 1 & 73].

12. Barrabee teaches a method of developing reading comprehension in a student comprising: (a) presenting a reading comprehension learning task (lesson material segment) at a designated beginning audio-visual difficulty level (skill level) for a current story (an alphagraphic representation of the words spoken by the foreign language speaker appears. Since the words are reproduced audibly as well, the visual presentation of frame C reinforces the audio presentation and aids the student in sounding out the words spoken as well as improving the student's ability to read the foreign language; Advancing to {Skill} Level 3, frame C, the graphic presentation of the speaker's words is masked from the screen. The action shown in frame B still provides strong cues as to what is being said, both at 9:53-10:43); (b) presenting to the student a first trial with a beginning audio-visual support level provided to assist the student to submit a correct reading comprehension answer, such that a subsequent audio-visual support level is incrementally increased each time the student submits an incorrect



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reading comprehension answer until a correct reading comprehension level is achieved with a corresponding ending audio-visual support level, or until an incorrect answer is selected at the maximum audio-visual support level (The student may utilize microphone to record the student's attempts to mimic with exactness the words spoken in the audio portion of the lesson, 9:11-24; It is understood that recording a student's attempt to mimic the lesson is submitting or selecting an answer; If the student fears he/she has exceeded the optimal skill level for learning, the student may call for "Help" by exercising switch. {Help} switch repeats a segment one or more times depending on the number of successive actuations of the switch. In this sense, it is similar to Repeat switch. However, upon exercise of Help switch, the system also retreats successively to each lower skill level to further support the learning process, 9:27-38; it is further understood that the skill level is increased, thus decreasing the support level, as in 10:1-43, until the student is either successful at sounding out the words of the lesson, or until the student cannot sound out the words at the most basic skill level), and (e) advancing the student to a subsequent reading comprehension learning task (lesson segments) when the student has completed all of the trials in the previous reading comprehension learning task (The lesson advances from segment to segment at the rate desired by the student. Switch 35 advances the presentation. Having advanced to the next segment, the student may have second thoughts about all he/she had gleaned from the earlier segment's presentation. Switch 36 allows the student to repeat one or more of the earlier segments, depending on the number of times the switch is successively actuated, 8:53-60; it is understood that the next segment is advanced to when the student no longer has second thoughts about his/her knowledge) [Claim 77].

13. What Barrabee fails to teach is (c) comparing the beginning audio-visual support level with the ending audio-visual support level to evaluate the first trial using the following standards: (i) the first trial has failed if the ending audio-visual support level provides more support than the

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beginning audio-visual support level; or (ii) the first trial has succeeded if the ending audio-visual support level provides the same support as the beginning audio-visual support level; and (d) presenting consecutive trials wherein the student's audio-visual support level is adjusted using the following standards: (i) the student's beginning audio-visual support level will be incrementally decreased after 3 out of 3, or 3 out of 4 consecutive trials have succeeded; or (ii) the student's beginning audio-visual support level will be incrementally increased to the highest ending audio-visual support level from 2 failed trials, after 2 out 2, or 2 out of 3 consecutive trials have failed [Claim 77]. However, Ho teaches rules comparing the beginning audio-visual support level with the ending audio-visual support level to evaluate the first trial (Rules are stored in the rules storage medium. The monitoring step and the analysis step are intermixed. Instead of monitoring more than once and then analyzing the results, the sensor monitors one type of behavior, with the result analyzed. Then the sensor monitors the same or a different type of behavior, with the result analyzed. After the step of reacting according to the indication or providing an indication, the invention repeats from the step of monitoring automatically. In this embodiment, study materials are continually presented to the student, although the study materials might be changed due to the reaction. The rules discussed can be self-adapting. In other words, the controller can change a rule after applying the rule to a number of situations and after analyzing the results. This can be done, for example, in a fuzzy-logic {sic} system, 13:15-40; the question can be used to assess the student's understanding level on the materials just presented to the student. After the student answers the question, if the answer is correct, the controller can praise the student appropriately. If the answer is not correct, the student may not understand what has just been presented. The presenter presents study materials that are easier than the one just presented to the student, such as one with a lower difficulty level, 12:12-30); and presenting consecutive trials wherein the student's audio-visual support level is

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adjusted (Another benefit provided by the question is that the student's answer to the question provides an indication on the student's understanding level in the study materials. As described above, if the answer is wrong, the system can go over that part of the study materials, or can reduce the difficulty levels of the study materials to be presented to the student, 12:59-65).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have used the standards of Ho to compare the beginning audio-visual support level with the ending audio-visual support level to evaluate the first trial, and presented consecutive trials wherein the student's audio-visual support level is adjusted, in the computer-aided educational system and method of Barrabee, in order to mimic a good instructor who teaches with sensitivity to her student's level, tailored to the strengths and weaknesses of the individual students [Claim 77].

14. What Barrabee and Ho fail to teach is the student's beginning audio-visual support level will be incrementally decreased after 3 out of 3, or 3 out of 4 consecutive trials have succeeded; or (ii) the student's beginning audio-visual support level will be incrementally increased to the highest ending audio-visual support level from 2 failed trials, after 2 out 2, or 2 out of 3 consecutive trials have failed [Claim 77]. However, Applicant has not disclosed how the particular rules selected for increasing or decreasing the support levels after 3 out of 3, or 3 out of 4 consecutive trials have succeeded, or after 2 out 2, or 2 out of 3 consecutive trials have failed, provides an advantage, solves any stated problem or is for any particular purpose. Moreover, it appears that the interactive education system of Barrabee, in view of the rules of adjustment of support levels of Ho, or the Applicant's instant invention would perform equally well for determining when to incrementally increase or decrease a student's support level. Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have adjusted the audio-visual support levels of the teaching system of

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Barrabee, using the standards for presenting consecutive trials of Ho, because such a modification would have been considered a mere design consideration, which fails to patentably distinguish over Barrabee and Ho [Claim 77].

15. Barrabee teaches wherein the instruction is performed on an electronic device (host computer 17, 6:32-37) [Claim 5] with a user input (remote control unit 16, 5:60-63) [Claim 2], including a visual display (standard TV receiver, 6:38-44) [Claim 3], and a speaker (inherently found in a standard TV receiver or earphones) [Claim 4].

16. Barrabee teaches all the features as described in the rejection of claim 1 above. What Barrabee fails to explicitly teach is wherein the student is an elementary school student, specifically a kindergarten to second grade student. However, Applicant has not disclosed that the particular age group of the user provides an advantage, solves any stated problem or is for any particular purpose. Moreover, it appears that the interactive education system of Barrabee or the Applicant's instant invention would perform equally well for teaching students at the elementary school level, kindergarten to second-grade level, or higher. Accordingly, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the teaching system of Barrabee for kindergarten through second-grade students, because such a modification would have been considered a mere design consideration, which fails to patentably distinguish over Barrabee [Claims 6 & 7].

17. Barrabee teaches wherein the learning tasks (lesson segments) are related to learning reading comprehension (visual presentations in frames C and D, 10:1-12) [Claims 9 & 10], speaking (speaker's presentation in frame A, 9:53-61) [Claim 12], and written components (alphagraphic representation and native translation, 10:1-12) [Claim 13] of a foreign language [Claim 8].

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18. Barrabee teaches wherein the skill level is related to words and parts of words (skill level adjustment masks speaker's words, 10:13-37) [Claim 11].

19. Barrabee teaches wherein the learning task or skill level is part of a curriculum (sequence of lessons, 2:41-43) [Claim 14], relating to reading (improving student's ability to read), alphabetics (alphagraphic presentation of words), phonics, phonetics, and phonological awareness (aids in sounding out words spoken), and vocabulary and comprehension (student tries to comprehend the scene and understand the speaker's words; 9:53-61 and 10:1-15) [Claim 17] of a written and spoken language [Claims 15 & 16].

20. Barrabee teaches wherein the curriculum (sequence of lessons) comprises one or more activities (lessons) [Claim 18], an activity comprises one or more student tasks (lesson segments, all in 2:41-3:17) [Claim 19], and a student task comprises a question, command, or comment (8:47-50) [Claim 20].

21. Barrabee teaches wherein the support is pre-designed for each varying level of difficulty of the learning task or skill level (switch 36 will cause the repeat of a lesson segment {auditory visual support} at successively increasing skill levels, 8:37-68; skill level selections 1-4 affect the presentation, 10:13-37; a "pre-designed" videodisc is provided, 1:66-68) [Claims 24 & 25].

22. Barrabee teaches wherein a pre-defined level of performance is the student being able to understand each question and select an appropriate answer (student records an answer and selects it to be played back with the lesson audio for comparison and commentary, 9:11-24) [Claim 67].

23. Barrabee teaches presenting to the student the learning task or skill level, or a second learning task belonging to a skill level to which the first learning task belongs, and presenting a lower level support than previously determined (2:41-53) [Claims 68 & 73], determining if the student is performing the second task with lower level support, and whether to present a second

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skill level task (determining if Help switch 43 is exercised, 9:27-38) [Claims 69, 72, & 73], adjusting the level of support necessary based on whether the student is performing at the lower level of support (using the help switch provides feedback from the student indicating the current performance level is not being met, 9:27-38) [Claims 70, 72, & 73], including maintaining the level of support if the student is not performing at the lower level of support (determining the use of the Repeat switch 36, 9:27-38) [Claim 71] or presenting to the student a task belonging to a second skill level (determining the first use of the Forward switch 35, 9:27-38) [Claims 72 & 73], including determining a new level same as the first level if the student is not performing the first or second tasks or the lower level of support (determining combination of using Help, Forward, and Repeat switches, 9:27-53) [Claim 76].

24. Barrabee also teaches determining whether to present to the student a third learning task (a foreign language conversation to be imitated) belonging to a second skill level or a second skill level based on the new standard level of support (determining actuation of Review switch 44, 9:39-46) [Claim 74], and determining to present a third task belonging to the second skill level when no support is necessary (switch 45 commands {the device} to present the selected sequence at a more basic skill level, where the display of video is increasingly masked at the more skilled levels, with only minimal cues are provided, 10:32-37; verifying understanding of lesson sequence using switch 45, 9:47-52) [Claim 75].

25. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrabee, in view of Ho, as applied to claims 1, 14, 18, & 19 above, and further in view of Wasowicz (US 6,435,877), hereinafter known as Wasowicz. Barrabee teaches all the features as demonstrated above in the rejection of claims 1, 14, 18, & 19. What Barrabee fails to teach is wherein the student task comprises a matching task [Claim 21], a recognition task [Claim 22], or a

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comparison or sequential task [Claim 23]. However, Wasowicz teaches tasks that train a user's skill at sequential memory and pattern recognition (7:57-61), and a task where the user is asked to choose a word that matches the requested manipulation of sounds in a word (9:10-13).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have incorporated the language tasks for a student, comprising matching, recognition, and sequential tasks, in the invention of Barrabee, for the purpose of coercing user mastery of sound detection in a computer-based language training environment [Claims 21-23].

26. Claims 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barrabee, in view of Bloom et al. (US 5,597,312), hereinafter known as Bloom. Barrabee teaches an apparatus for facilitating a learning task for a student, comprising: (a) a computer (6:32-37); (b) including a display, processor, and user input (5:60-63 and 6:32-44), and (c) a memory medium (6:3-17), with (d) software installed (6:26-37), including (e) a pre-designed learning task and/or skill level for a student (8:43-52); the software adapted to (h1) present the learning task and/or skill level to a student on the display (2:41-53); (h2) present on the display, to the student, support from the pre-designed set (9:27-52); and (h3) adjust the support presented on the display to the student based on responses to the learning task and/or skill level from the student (8:37-68), and (h4) software adapted to store the student's responses and an assessment of the student's performance solely based on the support presented to the student in order for the student to achieve a pre-defined level of performance in the learning task and/or skill level (8:6-28, each selected switch commands a program function). Barrabee also teaches wherein the pre-designed learning task or skill level is part of a curriculum (sequence of lessons, 2:41-43) [Claim 55], wherein the curriculum relates to a language (9:53-61) [Claim 56], and wherein the curriculum related to written and/or oral language skills (9:53-10:12) [Claim 57]. What Barrabee

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fails to teach is (f) a database stored on the memory medium; (g) the database including the pre-designed set of support; and (h4) software adapted to store in a database the student's responses and an assessment of the student's performance [Claim 54]. However, Bloom teaches the use of databases (6:28-36), support databases (domain model), and response databases (student model, 4:10-20). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have made use of databases as the data structure for software adapted to store support, responses and assessments of a student's performance, as described by Bloom, in the computer-based language training device of Barrabee, for the purpose of maintaining a division between general tutoring knowledge and domain-specific knowledge, and linking knowledge base structures, enabling a student's problem-solving performance to be integrated throughout the knowledge base [Claim 54].

### ***Response to Arguments***

27. Applicant's arguments with respect to claims 1-25, 54-57, & 67-77, filed 8/24/2007, see pages 11-14, have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is 571-272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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